The 5th International Conference on Social Sciences and Intelligence Management (SSIM 2025)

October 16-17, 2025, Chaoyang University of Technology, Taichung, Taiwan

Special Session on <u>Early Childhood Development and Learning: The Role of AI in Cognitive, Language and Social Skills Development</u> Call for Papers

Organizers: Dr. Mei-Ying Liao, Dr. Hua-Huei Chiou, Dr. Caitlin Meyer,

Early childhood is a crucial stage that shapes the foundation for lifelong learning, well-being, and societal contribution. During this period, children rapidly develop cognitive abilities, language skills, emotional intelligence, and social behaviors that influence their future success. Quality early education and developmental support are vital in maximizing each child's potential and fostering creativity, adaptability, and critical thinking skills. In recent years, rapid advancements in Artificial Intelligence (AI) have created unprecedented opportunities to support and enhance early childhood development. AI-powered tools and technologies revolutionise how educators, caregivers, and researchers monitor, assess, and foster children's growth. From personalized learning platforms and intelligent tutoring systems to speech and language recognition applications, AI offers innovative solutions to address individual learning needs, detect developmental delays, and create more inclusive and engaging learning environments. However, integrating AI into early childhood education also presents challenges, including ethical considerations, data privacy concerns, and the need for age-appropriate AI-driven interactions. Ensuring that AI applications are designed with a child-centered approach requires collaboration among experts from multiple disciplines, including education, psychology, AI development, and policy-making. This Special Session provides a dynamic platform for researchers, educators, psychologists, AI developers, and industry professionals to exchange cutting-edge research, innovative methodologies, and best practices in integrating AI into early childhood education and development. By fostering interdisciplinary discussions, we seek to explore how AI can enhance children's learning experiences, support teachers and caregivers, and contribute to the broader educational landscape.

Topics of interest include:

● AI-driven assessment tools for early childhood development

● AI applications in cognitive skill development (e.g., problem-solving, memory, and executive function training)

● AI-powered language acquisition and communication support for young learners

● Speech and language processing applications for early childhood education

● Emotion recognition and social interaction analysis for young children

● AI-driven interventions for social-emotional learning and behavioral development

● Adaptive learning technologies for diverse educational needs

- AI-powered tools for early intervention and special education
- Child-centered design and usability in AI applications
- Ethical considerations and challenges in AI applications for children
- Case studies and real-world applications of AI in early childhood education

Submissions:

Papers should follow the template announced on the SSIM 2025 conference website (https://ssim2025.github.io/), and be submitted via Microsoft CMT system and then select SUBJECT AREAS: SS-01:Early Childhood Development and Learning: The Role of AI in Cognitive, Language and Social Skills Development. (refer to the following captured figure).

Conference Proceeding Information:

Papers that are presented orally at the conference and meet the publication requirements of SSIM 2025 conference proceedings will be published in Springer's book series titled "Smart Innovation, Systems and Technology". Normally, this series will be indexed by Scopus and EI Compendex. Important Dates: (If SSIM extends the dates, follow those dates announced on the website)

- Abstract Submission Deadline: July 20, 2025
- Notification of Abstract Acceptance: August 20, 2025
- Full Paper Submission Deadline: October 5, 2025
- Notification of Full Paper Acceptance: October 26, 2025
- Camera-Ready Paper Deadline: November 16, 2025

For more information:

Please visit the SSIM 2025 official website (https://ssim2025.github.io/) or contact the organizers of this special session as follows:

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